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AMSAT NEWS SERVICE
ANS-199

ANS is a free, weekly, news and information service of AMSAT North America, The Radio Amateur Satellite Corporation. ANS reports on the activities of a worldwide group of Amateur Radio operators who share an active interest in designing, building, launching and communicating through analog and digital Amateur Radio satellites.

Please send any amateur satellite news or reports to:
ans-editor@amsat.org

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SB SAT @ AMSAT $ANS-199.01
It's Time to Send in Your 2010 Symposium Paper Abstract

AMSAT News Service Bulletin 199.01
>From AMSAT HQ SILVER SPRING, MD.
July 18, 2010
To All RADIO AMATEURS
BID: $ANS-199.01

The September 1 deadline of the call for papers for the 2010 AMSAT Space Symposium and Annual Meeting is rapidly approaching! So far the Proceedings crew has received two abstracts for papers - thank you!

The abstract for your paper does not require any special format. Simply send an e-mail to the Proceedings Editor, K9JKM with the basic information: Author Name, Callsign, and a few sentences that describe your proposed topic. I'll be looking forward to receiving your abstracts in my in-box at k9jkm@comcast.net.

The Symposium Committee invites proposals for:

+ Papers for publication in the Proceedings

+ Symposium Presentations

+ Poster Presentations

+ Equipment and Operating Demonstrations

These can be on any topic of interest to the amateur satellite community. We request a tentative title of your presentation as soon as possible, with final copy submitted by September 1, 2010 for inclusion in the printed proceedings.

To help you prepare your paper the Symposium Committee has posted
an author's guide on the AMSAT.org web page:
http://tinyurl.com/2djjnmx

The 2010 AMSAT Space Symposium and Annual Meeting will be held
October 8 - 10 at the Chicago/Elk Grove Holiday Inn which is near
O'Hare Airport.

[ANS thanks JoAnne, K9JKM for the above information]

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SB SAT @ AMSAT $ANS-199.02
Live Webstream of AMSAT-UK Space Colloquium

AMSAT News Service Bulletin 199.02
>From AMSAT HQ SILVER SPRING, MD.
July 18, 2010
To All RADIO AMATEURS
BID: $ANS-199.02

The 2010 Space Colloquium - the 25th held by AMSAT-UK, is taking
place on July 31 and August 1 at the Holiday Inn in Guildford,
England.

As usual there will be many interesting presentations and demonstra-
tions from the developers and users of the ever increasing number of
amateur radio satellites. In addition there will be talks on nano
propulsion systems, solar sails, cubesat sized linear transponders,
the GENSO ground station network, GNU radios and numerous other
topics.

It is still possible to attend the meeting itself, although the "early
booking" rates may now no longer be available - for booking details
see: http://www.uk.amsat.org/colloquium

If, however, you are unable to attend in person, we can announce that
the batc.tv webstream service will again be provided over the weekend
starting from 1000 BST (0900UTC) on Saturday, July 31.

The current programme - which is always subject to late changes - can
be seen at http://www.uk.amsat.org/content/view/713/284/ - again please

note that all timings are given BST which is UTC +1.

The BATC.TV webstream will be available here, click on Live Events
http://www.batc.tv/

AMSAT-UK
http://www.uk.amsat.org/

[ANS thanks Trevor, M5AKA for the above information]

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SB SAT @ AMSAT $ANS-199.03
South Pacific Total Solar Eclipse Captured in AO-51 Telemetry Data

AMSAT News Service Bulletin 199.03
>From AMSAT HQ SILVER SPRING, MD.
July 18, 2010
To All RADIO AMATEURS

BID: $ANS-199.03

On July 11 a total solar eclipse was observed in the southern Pacific Ocean. The path of totality stretched across the South Pacific Ocean, but the Moon's umbral shadow didn't make landfall except for a few spots such as the Cook Islands and Easter Island, and southern Chile and Argentina. A partial eclipse was visible from a much larger region covering the South Pacific and southern South America.

Masa, JN1GKZ noted a glitch in AO-51's Whole Orbit Data file (WOD) in the Total Array I current while AO-51 was located east of Argentina at the time. AO-51 Control Station, Mark, N8MH replied, "You have made a great observation, and I think you are exactly right about the cause of the observed 'glitches' in the telemetry. Usually at this point in its orbit we would observe AO-51 charging its batteries at a steady rate from fully illuminated panels."

Mark plotted some of the telemetry collected from 1800-2130utc) and posted it at:
http://www.amsat.org/amsat/ftp/telemetry/ao51/2010WOD/July2010/Wd071100_1800to2130utc_solar_eclipse.xls (watch the line wrap!)

A screenshot of AO-51 at the time:
http://www.amsat.org/amsat/ftp/telemetry/ao51/2010WOD/July2010/ao51_11July2010_2045utc_solar_eclipse.jpg (watch the line wrap!)

Alex, OZ9AEC ran a simulation using the Celestia space simulator and observed a partial solar eclipse as seen from AO-51. He recorded this simulation to a video and you can watch at:
http://www.youtube.com/watch?v~T8BhbqmVk

The Whole Orbit Data file for the eclipse can found at:
ftp://ftp.amsat.org/pub/amsat/telemetry/ao51/2010WOD/July2010/Wd071100

AO-51 WOD decoder can be downloaded from:
http://tinyurl.com/DK3WNsoftware

[ANS thanks Masa, JN1GKZ; Mark N8MH; and Alex, OZ9AEC for the above information]

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SB SAT @ AMSAT $ANS-199.04
New Distance Record for AO-7 DX

AMSAT News Service Bulletin 199.04
>From AMSAT HQ SILVER SPRING, MD.
July 18, 2010
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A new distance record of 7843 km (4898 Miles) via AO-7 was established on July 15 between Luciano, PY5LF and Joe, K3SZH. The estimated maximum range of AO-7 is ~7,900 km. Piraj, PS8RF noted that the log of QSO can be seen on the unofficial AO-7 web site:
http://www.planetemily.com/ao7/ao7log.php.
Congratulations to both Luciano and Joe!

[ANS thanks Piraj, PS8RF for the above information]

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SB SAT @ AMSAT $ANS-199.05
ISS Active on Amateur Radio

AMSAT News Service Bulletin 199.05
>From AMSAT HQ SILVER SPRING, MD.
July 18, 2010
To All RADIO AMATEURS
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For several days last week, Colonel Doug Wheelock, KF5BOC, took to the air from the ISS to talk to hams around the globe. The 2-meter FM phone frequencies for voice operation with the ISS over the US are 144.490 MHz uplink with 145.800 MHz downlink.

Dee, NB2F noted, "I Just talked with the ISS. Loud and Clear. Good sigs and thanks to the ISS crew for making contacts." Damon, WA4HFN wrote, "I made my first ISS voice contact with NA1SS. He was full meter reading!" Greg, KO6TH also noted the strong downlink signal.

Later in the week the ISS crew activated the SSTV equipment to support the Moscow Aviation Institute experiment (MAI-75) on July 15 and 16. The system operated the space cam in slide show mode. The latest ISS SSTV information can be found on-line at:
http://ariss-sstv.blogspot.com/
The images uploaded by users can be found on-line at:
http://www.amsat.org/amsat/ariss/SSTV/.

[ANS thanks Kenneth, N5VHO for the above information]

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SB SAT @ AMSAT $ANS-199.06
ARRL Teacher Institute Space Operation Successful

AMSAT News Service Bulletin 199.06
>From AMSAT HQ SILVER SPRING, MD.
July 18, 2010
To All RADIO AMATEURS
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ARRL Education and Technology Program Coordinator, Mark Spencer, WA8SME conducted the Dayton Amateur Radio Association sponsored ARRL TI-2 Teacher's Institute - Space this week in Dayton. The purpose of this teacher's institute is to instruct teachers on how to access satellites for use in their classrooms. The four day institute will involve a lot of on-the-air activity on the birds.

Concluding a successful session, Mark wrote, "I want to offer my sincerest thanks to the satellite community, Drew, and AMSAT for the support that you gave us during the TI-2 Space this year. Over the last three days, your support in making contacts with the teachers, and in particular, the dedicated SSTV activity on AO51, has made the TI-2 Space a huge success this year. I wish each of you could have seen the glowing light bulbs in the teachers' heads at each successful satellite contact. I am confident that they will be taking what they learned this week back into their classrooms to make space 'alive' for their students. Thanks for the patience you showed as these novice satellite operators learned the tricks of the trade."

Mark also noted the success of having 8 satellite ground stations, and antennas operating at one time.

[ANS thanks Mark Spencer, WA8SME for the above information]

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SB SAT @ AMSAT $ANS-199.07
India PSLV-C15 Launch Includes Two New Cubesats

AMSAT News Service Bulletin 199.07
>From AMSAT HQ SILVER SPRING, MD.
July 18, 2010
To All RADIO AMATEURS
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Reporting from the Upagrah Amateur Radio Club VU2URC, at the ISRO Satellite Centre in India, Mani, VU2WMY said the July 12 launch of the 17th flight launch of Indian space agency's Polar Satellite Launch Vehicle PSLV-C 15 from Sriharikota was successful. Mani wrote, "All the five satellites including the StudSat and TISat aboard the PSLV-C15 were successfully separated from the vehicle and they are in the [correct] 640 Km orbit right now."

The PSLV-C15 launch included a primary payload of the CartoSat-2B remote sensing satellite and AlSat-2A satellite. The three other satellites included AISSat-1, a Norwegian Defence Research Establishment satellit to demonstrate a new maritime AIS receiver; and the TISat-1 and StudSat amateur radio banded cubesat payloads.

TIsat-1: Swiss CubeSat
Uplink: 145.980MHz FM, AFSK
Downlink: 437.305MHz FM, AFSK
Beacon: 437.305MHz CW
Callsign: HB9DE
http://www.spacelab.dti.supsi.ch/tiSat1.html

StudSat : India CubeSat
Uplink: 437.505MHz, 9600bps FSK
Downlink: 437.505MHz, 9600bps FSK
Beacon : 437.861 MHz (10 mW),   20bps ASK
http://www.teamstudsat.com/

Shortly after launch Alan, ZL2BX reported, "Good signals from TISat over ZL 0926 to 0936 when the signals stopped abruptly shortly before predicted LOS. Copied HI HI HI TISAT H."

Christian, F1AFZ, noted the beacon on 437.305 MHz TIsat-1 was on over Europe HI HI HI TISAT K." He posted a recording of the pass at: listen:
http://www.f1afz.fr/satellites/new_2010/tisat_12-07-2010_8h45tu.mp3

Paolo, HB9TYP says TIsat-1 is in power/battery saving mode during eclipse. Its transmission is limited or completely shut off according to on board rules. On behalf of the TIsat-1 team Paolo thanks the AMSAT community for signal reports already received. He says you can find the latest keps and other details on the project and mission status webpages:
http://www.spacelab.dti.supsi.ch/tiSat1MS.php. The TIsat-1 team invites your continued feedback. While copying the beacon please collect and report the character emitted AFTER "HI HI HI TISAT" along with time in UTC, your location and signal quality.

A Video of the launch is on line at http://tinyurl.com/29ukc4l

[ANS thanks Mineo Wakita, JE9PEL; Mani, VU2WMY; Alan, ZL2BX;
Christian, F1AFZ; and Paolo, HB9TYP for the above information]

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SB SAT @ AMSAT $ANS-199.08
Satellite Shorts From All Over

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+ AMSAT Keplerian Elements Guru Ray Hoad, WA5QGD noted this week that the following satellites have decayed from orbit and have been removed from the KEPS distribution list:
1. DRAGNSAT Cat# 35690, Decay date 3-17-2010.
2. POLLUX Cat# 35693, Decay date 3-29-2010.
STUDSAT Cat# 36801, Launched 7-12-2010 has been added to the distribution list. The Swiss Cubesat TIsat-1 has now been identified as object #36796 and will be added shortly.

+ Stu WA2BSS reminds radio amateurs that the next Hudson Valley Satcom Net will meet on Thursday July 22 at 2000 EDT (2400 UTC). The Echolink node is: N2EYH-L, The net meets on the air on the 146.97 MHz repeater. More info: http://www.hvsatcom.org.

+ Mineo Wakita, JE9PEL noted that Japan's CO-65 (Cute-1.7+APD II) is in Digipeater Mode during weekends. The CO-65 digipeater is accessed using standard AX.25 protocol. The uplink of the digipeater is 1267.600 MHz and the downlink 437.475 MHz using 9600 bps GMSK. Mineo refers interested amateurs to these web pages for further information:
http://lss.mes.titech.ac.jp/ssp/cute1.7/amateur_service_e.html
http://www.ne.jp/asahi/hamradio/je9pel/ct17gmsk.htm
http://www.ne.jp/asahi/hamradio/je9pel/ct17gms2.htm
http://www.kc2rlm.info/soundcardpacket/

+ WorkedGrids is a freeware Windows application that displays a map showing Amateur Radio grid squares contacted and logged using a third-party logging program. The app was developed by VE2ZAZ, and uses colors to display information on a per-band basis. Up to four bands can be displayed concurrently. For its input, the program reads the plain-text ASCII log files generated by most logging programs. The file is read at a set interval and the worked grid squares on the map are updated in a dynamic way as the contest progresses and the log file is periodically saved. WorkedGrids can be downloaded from http://tinyurl.com/24okrtm.

+ SaturnDaily.com noted an interesting NASA JPL video produced from Cassini orbiter radar data showing a fly-by simulation of Ontario Lacus, the largest lake in the southern hemisphere of Saturn's moon Titan. Watch at: http://www.jpl.nasa.gov/video/index.cfm?id=2

[ANS thanks everyone for the above information]

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In addition to regular membership, AMSAT offers membership in the President's Club. Members of the President's Club, as sustaining donors to AMSAT Project Funds, will be eligible to receive additional benefits. Application forms are available from the AMSAT Office. And with that

please keep in mind the young ham who got a job in the shoe factory but found that he didn't fit in. When he tried working at the deli they told him he didn't cut the mustard. He found that he just wasn't up to it in his latest job feeding the giraffes at the zoo.

73,
This week's ANS Editor,
JoAnne Maenpaa, K9JKM